II.    OBJECTION TO SPECIFICATION

Page 2 of the Action objects to the Specification for including indefinite subject matter. More particularly, the Examiner states, 'The specification discloses a random extraction device for *extracting a **predetermined** number of records at **random*** from the data to be analyzed, so that a graph is displayed based on the extracted data" (page 5, lines 29 to page 5, lines 1-5, page 7, line 16-10). It is ambiguous since if the records are predetermined, that is they are known, they can not be extracted *at random*. The extraction can not be a random extraction.'

In response, the Applicant submits that the above quoted feature is not indefinite, in view of the following. What is predetermined is not the records themselves but the **number** of records. For example, assume that the predetermined number of records is five. Therefore, five records are extracted at random.

Therefore, in view of the above explanation, withdrawal of the rejections is respectfully requested.

III.    REJECTION OF CLAIMS 1-8, 10-19, AND 21-26 UNDER 35 U.S.C. § (1)

Page 3 of the Action rejects claims 1-8, 10-19, and 21-26 under 35 U.S.C. § 112, first paragraph, 'as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which is most nearly connected, to make and/or use the invention. Regarding independent claims 1, 12 and 23, it is

ambiguous since the ransom extracting can not be carried out based on a predetermined records

as disclosed in the specification mentioned above (page 4, lines 29 to page 5, lines 1-5, page 7,

lines 16-19). The other claims are also rejected for being dependent on claims 1, 12 and 23.'

Please see the above explanation in section II of this Response. In view of the

explanation therein, withdrawal of the rejections is respectfully requested.


IV.    REJECTION OF CLAIMS 1-8, 10-19, and 21-26 UNDER 35 U.S.C. § 103(a)

On pages 2-5 of the Action, the Examiner rejects claims 1-8, 10-19, and 21-26 under

35 U.S.C. § 103(a) as being unpatentable over by Microsoft Excel 97, published by the

Microsoft Corporation, 1997, pages 1-11 (Hereinafter "Excel 97").

Page 7 of the Action states, 'Applicant amends the claims 1, 12 and 23 by adding

"random extraction means for extracting data automatically at random from a database" as well

as "the data extracted at random from the database by the random extraction means is crossed

summed up . . ." Applicants argue that Examiner stated that the sampling in Excel 97 is

performed under the direction of the operator, but is not performed automatically.

Examiner disagrees. First, Examiner did not state that the sampling in Excel 97 is

performed under the direction of the operator, but is not performed automatically. Second, the

title of the invention mentions the interaction. That is, there exists a user interaction. Finally,

it was well known that in Excel 97, the range of selection is selected by a user. That is the

user interaction. The system, then extracts data *selected from the database* to perform the sum

up operation as well as other operations *automatically.'*

In response, the Applicant asserts that the Action fails to point out where in <u>Excel 97</u>

the feature of "extracting data automatically at random from a database" is disclosed or

suggested. While the Examiner claims that <u>Excel 97</u> "extracts data *selected from the database*

to perform the sum up operation as well as other operations *automatically*," nevertheless this is

different from "extracting data **automatically at random** from a database . . ." (emphasis

added). Since <u>Excel 97</u> does not disclose the random extraction (the word "random" is not

even used in <u>Excel 97</u>), the only other way this could be accomplished is at the direction of a

user. However, this would not be extracting **automatically**.

While page 7 of the Action states that "the title of the invention mention the interaction.

That is, there exists a user interaction." However, just because the word "interactive" is in the

title of the present invention does not imply that every operation performed by the invention

must be interactive.

The Applicant respectfully requests that the Examiner, if he decides to maintain the

rejections, produce a reference disclosing the extracting data automatically at random, as

claimed. <u>Excel 97</u> is insufficient to disclose or suggest this feature.

Independent claims 1, 12 and 23 recite the features discussed above, and therefore are

not rendered unpatentable over the cited art.

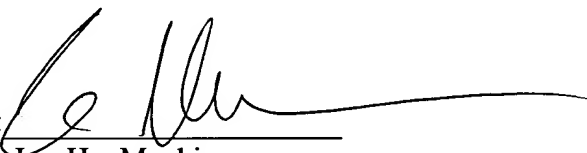In view of the above, withdrawal of the rejections is respectfully requested.

## V.    CONCLUSION

In view of the above, it is respectfully submitted that the Application is in condition for

allowance, which action is earnestly solicited.

If any further fees are required in connection with the filing of this Amendment, please

charge same to our Deposit Account No.  19-3935.


Respectfully submitted,

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## ATTACHMENT TO SHOW CHANGES MADE

## IN THE CLAIMS:

None of the claims are amended herein. Nevertheless, for the convenience of the Examiner, all of the pending claims are reproduced below.

1.      (AS TWICE AMENDED) An interactive data analysis support apparatus for supporting the analysis of data, said apparatus comprising:

random extraction means for extracting data automatically at random from a database;

cross tabulation display means for displaying according to summing up conditions to set a range to be displayed a cross tabulation in which the data extracted at random from the database by the random extraction means is cross summed up;

cell specifying means for specifying at least one cell among a number of cells constituting said cross tabulation; and

graph display means for displaying the data extracted at random from the database as a graph within the range of the cell specified by said cell specifying means.

2.      (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 1, wherein said graph display means comprises display limiting means for limiting the range of the data to be displayed .

3.     (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 2, wherein said graph display means comprises storage means for storing the range of the data to be displayed which is limited by said display limiting means as a summing up condition used by said cross tabulation display means, and said cross tabulation display means is capable of displaying cross tabulation in which the data extracted at random from the database is cross-summed up according to the summing up condition stored by said storage means.

4.     (AS ONCE AMENDED) An interactive data analysis support apparatus according to claim 1, wherein said graph display means comprises rearranging means for automatically rearranging in a graph the data to be displayed according to predetermined conditions.

5.     (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 4, wherein said graph display means comprises storage means for storing data to be displayed which is rearranged by said rearranging means as a summing up condition used by said cross tabulation display means, and said cross tabulation display means is capable of displaying cross tabulation in which the data extracted at random from the database is cross-summed up according to the summing up condition stored by said storage means.

6.     (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 1, wherein said graph display means comprises:

automatic analyzing means for finding a new display item by extracting a characteristic of the data extracted at random from said database, and display item-adding means for adding the new display item found by said automatic analyzing means to the graph.

7.     (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 6, wherein

said graph display means comprises storage means for storing the new display item added by said display item-adding means as a summing up condition used by said cross tabulation display means, and said cross tabulation display means is capable of displaying cross tabulation in which the data extracted at random from a database is cross-summed up according to the summing up condition stored by said storage means.

8.     (AS TWICE AMENDED) An interactive data analysis support apparatus according to claim 1, wherein the data extracted at random from said database is an aggregate of records composed of a number of data items.

10.     (AS UNAMENDED) An interactive data analysis support apparatus according to claim 8, wherein said graph display means has a structure such that a graph is displayed designating said data item as an axis.

11.    (AS UNAMENDED) An interactive data analysis support apparatus according to claim 10, wherein said graph display means comprises the same number of axes as the data items constituting said records, and plots a point corresponding to a value of each data item with regard to each of said records, to thereby display a graph in which points plotted on adjacent axes are connected by a segment.

12.    (AS TWICE AMENDED) A medium on which is recorded an interactive data analysis support program for supporting the analysis of data wherein there is recorded at least a program for executing:

a random extraction operation extracting data automatically at random from a database;

a cross tabulation display operation displaying according to summing up conditions to set a range to be displayed a cross tabulation in which the data extracted at random from the database by the random extraction operation is cross-summed up;

a cell specifying operation specifying at least one cell among a number of cells constituting said cross tabulation; and

a graph display operation displaying the data extracted at random from the database as a graph within the range of the cell specified by said cell specifying operation.

13.    (AS TWICE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 12, wherein said graph display operation

comprises a display limiting operation for limiting the range of the data to be displayed .

14.    (AS TWICE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 13, wherein said graph display operation

comprises a storage operation for storing the range of the data to be displayed which is limited

by said display limiting operation as a summing up condition used by said cross tabulation

display operation; and

said cross tabulation display operation is capable of displaying cross tabulation in which

the data extracted at random from a database is cross-summed up according to the summing up

condition stored by said storage operation.

15.    (AS TWICE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 12, wherein said graph display operation

comprises a rearranging operation for automatically rearranging in a graph the data to be

displayed according to predetermined conditions.

16.    (AS TWICE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 15, wherein said graph display operation

comprises a storage operation storing data to be displayed which is rearranged by said

rearranging operation as a summing up condition used by said cross tabulation display

operation, and said cross tabulation display operation is capable of displaying cross tabulation in which the data extracted at random from a database is cross-summed up according to the summing up condition stored by said storage operation.

17. (AS TWICE AMENDED) A medium on which is recorded an interactive data analysis support program according to claim 12, wherein said graph display operation comprises:

an automatic analyzing operation for finding a new display item by extracting a characteristic of the data extracted at random from said database, and a display item-adding function for adding the new display item found by said automatic analyzing operation to the graph.

18. (AS TWICE AMENDED) A medium on which is recorded an interactive data analysis support program according to claim 17, wherein said graph display operation comprises a storage operation for storing the new display item added by said display item-adding operation as a summing up condition used by said cross tabulation display operation, and said cross tabulation display operation is capable of displaying cross tabulation in which the data extracted at random from a database is cross-summed up according to the summing up condition stored by said storage operation.

19. (AS TWICE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 12, wherein the data extracted at random from

said database is an aggregate of records composed of a number of data items.

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21.    (AS ONCE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 19, wherein said graph display operation has a

structure such that a graph is displayed designating said data item as an axis.

22.    (AS ONCE AMENDED) A medium on which is recorded an interactive data

analysis support program according to claim 21, wherein said graph display operation

comprises the same number of axes as the data items constituting said records, and plots a

point corresponding to a value of each data item with regard to each of said records, to thereby

display a graph in which points plotted on adjacent axes are connected by a segment.

23.    (AS ONCE AMENDED) An interactive data analysis support apparatus for

supporting the analysis of data, said apparatus comprising:

a random extraction device automatically extracting data at random from a database;

a cross tabulation display device displaying according to summing up conditions to set a

range to be displayed a cross tabulation in which the data automatically extracted at random

from the database is cross summed up;

a cell specifying device specifying at least one cell among a number of cells constituting

said cross tabulation; and

a graph display device displaying the data extracted at random from the database as a graph within the range of the cell specified by said cell specifying means.

24.  (AS ONCE AMENDED) An interactive data analysis support apparatus according to claim 23, wherein said graph display device comprises display limiting device for limiting the range of the data to be displayed by an operation in a graph.

25.  (AS UNAMENDED) An interactive data analysis support apparatus according to claim 23, wherein said graph display device comprises a rearranging device for automatically rearranging in a graph the data to be displayed according to predetermined conditions.

26.  (AS ONCE AMENDED) An interactive data analysis support apparatus according to claim 23, wherein said graph display means comprises:

an automatic analyzing device finding a new display item by extracting a characteristic of said the data extracted at random from said database, and a display item-adding device adding the new display item found by said automatic analyzing device to the graph.